Complete Summary

TITLE

Eye care: percentage of patients aged 18 years and older with a procedure of cataract surgery with IOL placement who received a comprehensive preoperative assessment of 1) dilated fundus exam; 2) axial length, corneal keratometry measurement, and method of IOL power calculation; and 3) functional or medical indication(s) for surgery prior to the cataract surgery with IOL placement within 12 months prior to cataract surgery.

SOURCE(S)

American Academy of Ophthalmology, Physician Consortium for Performance Improvement®, National Committee for Quality Assurance. Eye care physician performance measurement set. Chicago (IL): American Medical Association, National Committee for Quality Assurance; 2007 Oct. 36 p. [42 references]

Measure Domain

PRIMARY MEASURE DOMAIN

Process

The validity of measures depends on how they are built. By examining the key building blocks of a measure, you can assess its validity for your purpose. For more information, visit the Measure Validity page.

SECONDARY MEASURE DOMAIN

Does not apply to this measure

Brief Abstract

DESCRIPTION

This measure is used to assess the percentage of patients aged 18 years and older with a procedure of cataract surgery with intraocular lens (IOL) placement who received a comprehensive preoperative assessment of 1) dilated fundus exam; 2) axial length, corneal keratometry measurement, and method of IOL power calculation; and 3) functional or medical indication(s) for surgery prior to the cataract surgery with IOL placement within 12 months prior to cataract surgery.

RATIONALE

1. Scientific basis for comprehensive pre-operative assessment

   In order to ensure that cataract surgery is APPROPRIATE and SAFE to perform, the operating surgeon is obligated to ensure that there is 1) a patient-centered problem that cataract surgery will address and improve (i.e., that there is likely to be an appropriate outcome of surgery); 2) that the safety of the procedure is maximized through appropriate intraocular lens (IOL) choice to reduce "wrong power IOL" surgery; and 3) that there are no other conditions that would impact either the appropriateness or the safety of surgery through a comprehensive eye examination, including dilation.

   The purpose of the comprehensive evaluation of a patient whose chief complaint might be related to a cataract is to determine the presence of a cataract, confirm that a cataract is a significant factor related to the visual impairment and symptoms described by the patient, and exclude or identify other ocular or systemic conditions that might contribute to visual impairment or affect the cataract surgical plan or ultimate outcome.

   During the preoperative evaluation, other ocular conditions could be found in the course of fundus evaluation that would lead to identification of possible contraindications for surgery:

   Surgery for a visually impairing cataract should not be performed under the following circumstances:

   - Eyeglasses or visual aids provide vision that meets the patient's needs.
   - Surgery will not improve visual function.
   - The patient cannot safely undergo surgery because of coexisting medical or ocular conditions.
   - Appropriate postoperative care cannot be arranged.

   The surgeon should consider the patient's individual desires and needs in selecting an appropriate postoperative refractive target. The axial length can be measured by A-scan ultrasonography using either an applanation (contact) or an immersion (noncontact) technique. Biometry measurement for both eyes is advisable, even if surgery is not planned for the other eye. Formulas for calculating IOL power rely on keratometry to determine the net refractive contribution of the cornea. These measurements can be obtained through either manual or automated keratometry, or through corneal topography. Latest generation lens calculation formulas should be used in the IOL selection process.

2. Evidence of gap in care

   Results from the Cataract Appropriateness Project from RAND and additional studies for Agency for Health Care Policy and Research (AHCPR) at RAND suggest that the gap for a comprehensive pre-operative assessment range from 10 to 30+%.

The following clinical recommendation statements are quoted verbatim from the referenced clinical guidelines and represent the evidence base for the measure:

The initial physical examination should include visual acuity, refraction, ocular alignment and motility, pupil reactivity and function, IOP measurement, external examination, slit-lamp biomicroscopy, evaluation of the fundus through dilated pupil, assessment of general and mental health. (American Academy of Ophthalmology [AAO])

Achieving the targeted postoperative refraction requires measuring axial length accurately, determining corneal power, and using the most appropriate IOL power formula. (AAO)

The primary indication for surgery is visual function that no longer meets the patient's needs and for which cataract surgery provides a reasonable likelihood of improved vision. *Functional indications* for surgery include documentation that a patient is experiencing difficulty with activities of daily living, such as reading, walking, driving, and performing other visual tasks. This may also include symptoms of anisometropia, glare, starbursts or color vision abnormalities. (AAO)

Medical indications for surgery include documentation that the presence of the cataract is contributing to disease (such as primary angle closure) or that removal is necessary for adequate visualization of the fundus. Such medical conditions for a cataract removal include the following:

- Clinically significant anisometropia in the presence of a cataract.
- The lens opacity interferes with optimal diagnosis or management of posterior segment conditions.
- The lens causes inflammation (phacolysis, phacoanaphylaxis).
- The lens induces angle closure (phacomorphic or phacotopic). (AAO)

PRIMARY CLINICAL COMPONENT

Cataract surgery; intraocular lens (IOL) placement; comprehensive preoperative assessment (dilated fundus exam, axial length, corneal keratometry measurement, method of IOL power calculation, functional or medical indication[s] for surgery)

DENOMINATOR DESCRIPTION

All patients aged 18 years and older who had cataract surgery with intraocular lens (IOL) placement

NUMERATOR DESCRIPTION

Patients who received a comprehensive preoperative assessment of 1) dilated fundus exam; 2) axial length, corneal keratometry measurement and method of intraocular lens (IOL) power calculation; and 3) functional or medical indication(s) for surgery prior to the cataract surgery with IOL placement within 12 months prior to cataract surgery

Evidence Supporting the Measure

EVIDENCE SUPPORTING THE CRITERION OF QUALITY

- A clinical practice guideline or other peer-reviewed synthesis of the clinical evidence

NATIONAL GUIDELINE CLEARINGHOUSE LINK

- Cataract in the adult eye.

Evidence Supporting Need for the Measure

NEED FOR THE MEASURE

Variation in quality for the performance measured

EVIDENCE SUPPORTING NEED FOR THE MEASURE

American Academy of Ophthalmology, Physician Consortium for Performance Improvement®, National Committee for Quality Assurance. Eye care physician performance measurement set. Chicago (IL): American Medical Association, National Committee for Quality Assurance; 2007 Oct. 36 p. [42 references]

State of Use of the Measure

STATE OF USE

Current routine use

CURRENT USE

Internal quality improvement

Application of Measure in its Current Use

CARE SETTING

Ambulatory Care
Physician Group Practices/Clinics

PROFESSIONALS RESPONSIBLE FOR HEALTH CARE

Physicians

LOWEST LEVEL OF HEALTH CARE DELIVERY ADDRESSED

Individual Clinicians

TARGET POPULATION AGE

Age greater than or equal to 18 years

TARGET POPULATION GENDER

Either male or female

STRATIFICATION BY VULNERABLE POPULATIONS

Unspecified

Characteristics of the Primary Clinical Component

INCIDENCE/PREVALENCE

Unspecified

ASSOCIATION WITH VULNERABLE POPULATIONS

Unspecified

BURDEN OF ILLNESS

Unspecified

UTILIZATION

Unspecified

COSTS

Unspecified

Institute of Medicine National Healthcare Quality Report Categories

IOM CARE NEED

Getting Better

IOM DOMAIN

Effectiveness

Data Collection for the Measure

CASE FINDING

Users of care only

DESCRIPTION OF CASE FINDING

All patients aged 18 years and older who had cataract surgery with intraocular lens (IOL) placement

DENOMINATOR SAMPLING FRAME

Patients associated with provider

DENOMINATOR INCLUSIONS/EXCLUSIONS

Inclusions
All patients aged 18 years and older who had cataract surgery with intraocular lens (IOL) placement

Exclusions
None

RELATIONSHIP OF DENOMINATOR TO NUMERATOR

All cases in the denominator are equally eligible to appear in the numerator

DENOMINATOR (INDEX) EVENT

Clinical Condition
Encounter
Therapeutic Intervention

DENOMINATOR TIME WINDOW

Time window is a single point in time

NUMERATOR INCLUSIONS/EXCLUSIONS

Inclusions
Patients who received a comprehensive preoperative assessment of 1) dilated fundus exam; 2) axial length, corneal keratometry measurement and method of intraocular lens (IOL) power calculation; and 3) functional or medical indication(s) for surgery prior to the cataract surgery with IOL placement within 12 months prior to cataract surgery

Exclusions
None

MEASURE RESULTS UNDER CONTROL OF HEALTH CARE PROFESSIONALS, ORGANIZATIONS AND/OR POLICYMAKERS

The measure results are somewhat or substantially under the control of the health care professionals, organizations and/or policymakers to whom the measure applies.

NUMERATOR TIME WINDOW

Fixed time period

DATA SOURCE

Administrative data
Medical record

LEVEL OF DETERMINATION OF QUALITY

Individual Case

PRE-EXISTING INSTRUMENT USED

Unspecified

Computation of the Measure

SCORING

Rate

INTERPRETATION OF SCORE

Better quality is associated with a higher score

ALLOWANCE FOR PATIENT FACTORS

Unspecified

STANDARD OF COMPARISON

Internal time comparison

Evaluation of Measure Properties

EXTENT OF MEASURE TESTING

Unspecified

Identifying Information

ORIGINAL TITLE

Measure #5 cataracts: comprehensive pre-operative assessment for cataract surgery with intraocular lens (IOL) placement.

MEASURE COLLECTION

The Physician Consortium for Performance Improvement® Measurement Sets

MEASURE SET NAME

SUBMITTER

American Medical Association on behalf of the American Academy of Ophthalmology, the National Committee for Quality Assurance, and the Physician Consortium for Performance Improvement®

DEVELOPER

American Academy of Ophthalmology
National Committee for Quality Assurance
Physician Consortium for Performance Improvement®

FUNDING SOURCE(S)

Unspecified

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FINANCIAL DISCLOSURES/OTHER POTENTIAL CONFLICTS OF INTEREST

Conflicts, if any, are disclosed in accordance with the Physician Consortium for Performance Improvement® conflict of interest policy.

INCLUDED IN

Ambulatory Care Quality Alliance

ADAPTATION

Measure was not adapted from another source.

RELEASE DATE

2007 Oct

MEASURE STATUS

This is the current release of the measure.

SOURCE(S)

American Academy of Ophthalmology, Physician Consortium for Performance Improvement®, National Committee for Quality Assurance. Eye care physician performance measurement set. Chicago (IL): American Medical Association, National Committee for Quality Assurance; 2007 Oct. 36 p. [42 references]

MEASURE AVAILABILITY

The individual measure, "Measure #5 Cataracts: Comprehensive Pre-operative Assessment for Cataract Surgery with Intraocular Lens (IOL) Placement," is published in the "Eye Care Physician Performance Measurement Set." This document and technical specifications are available in Portable Document Format (PDF) from the American Medical Association (AMA)-convened Physician Consortium for Performance Improvement® Web site: www.physicianconsortium.org.

For further information, please contact AMA staff by e-mail at cqi@ama-assn.org.

NQMC STATUS

This NQMC summary was completed by ECRI Institute on February 13, 2008. The information was verified by the measure developer on April 22, 2008.

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